



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,455	06/23/2003	Kenneth J. Kelso	Kelso-I Utility	9384
26604	7590	05/18/2004	EXAMINER	
KENNETH L. NASH P.O. BOX 680106 HOUSTON, TX 77268-0106			LEE, JONG SUK	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/602,455	KELSO, KENNETH J. <i>[Signature]</i>
Examiner	Art Unit	
Jong-Suk (James) Lee	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on \_\_\_\_.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 13-17 is/are allowed.

6)  Claim(s) 1,2 and 4-12 is/are rejected.

7)  Claim(s) 3 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 23 June 2003 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_ .

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected because the cross hatching for the soil formation in Figs. 1-4, 5A, 5B, 7-9 and 11 are not shown. Correction is required.

### ***Claim Objections***

2. Claims 1, 9 and 17 are objected to because of the following informalities:

Claim 1, line 8: "at least one or said at least on piston" should be -- said at least one piston --.

Claim 9, line 4: "hardenable material may inside said sleeve" should be -- hardenable material may be poured inside said sleeve --.

Claim 17, line 2: "said chamber" should be -- said pressure chamber --.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 8: The limitation, "at least one piston cylinder for each of said plurality of piston assemblies.....; at least one piston for each of ...piston assemblies; at least one fluid line for pumping fluid for each of ....piston assemblies" in lines 5-11 renders the claim indefinite because it is not clear as to whether the piston cylinder, piston and fluid line are part of the piston assemblies or separate elements from the piston assemblies. It is suggested that --a plurality of piston assemblies, ....beneath said structure, **each piston assembly comprising;** at least one piston cylinder, said at least one piston cylinder.....; at least one piston, said at least one piston.....' at least one fluid line for pumping fluid. --.

Re claim 9: The preamble, "The system of claim 2" is improper because claim 2 is drawn to the method. It appears to be dependent upon claim 8 which is drawn to the system and have been treated as such. Affirmation of this is required by appropriate amendment.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory (US 4,695,203).

Gregory discloses a method and apparatus for lifting and supporting a structures comprising: positioning a plurality of piston assemblies (10) beneath the structure being supported with piling (11) buried in the ground, each piston assembly having a length to lift the structure, operating the plurality of piston assemblies simultaneously to lift the foundation and the structure with respect to the soil, the piston assembly comprising of a piston cylinder (24) with a sealed pressure chamber (48) and a hydraulic fluid line (63) to the pressure chamber (see Figs. 1-2; col.2, lines 12-63; col.3, lines 39-66).

Although Gregory fails to specifically disclose the range of the lifting length, such as more than 3 feet, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to adjust the desired length for lifting the structure with using the piston/hydraulic cylinder assemblies.

7. Claims 1, 2, 4-7, 8-9 as understood, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory in view of Mead et al (US 5,709,286). The teachings of Gregory have been discussed above.

However, Gregory fails to disclose or fairly suggest the in-ground lifting assemblies with a piston and cylinder assemblies buried in the ground and affixed with hardenable material.

Mead et al discloses a mechanic replacement for hydraulic in-ground lift comprising a sleeve/form (18) placed and mounted within the excavation whereby hardenable material being poured outside the sleeve (Fig. 4), a piston cylinder (26) being positioned and formed from hardenable material (14, 16) being poured to the cavity (see Figs. 1-4; col.3, lines 11-67; col.4, lines 1-52).

Therefore, in view of Mead et al., it would have been obvious to one of the ordinary skill in the art at the time the invention was made to replace the piling of Gregory with the sleeve/cylinder assembly in order to enhance the reinforcement and capacity for lifting the foundation of the structure.

With respect to the hydro excavator and sensor for the stress minimization for foundation, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to use a conventional hydro excavation equipment and pressure sensors to the piston assemblies in order to efficiently provide the lifting system for the building foundation.

***Allowable Subject Matter***

8. Claims 13-17 would be allowable over the prior art of record.
9. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references cited disclose a foundation support apparatus with sectional sleeves, a system for pier underpinning of settling foundation and a method and device for raising and supporting a building foundation.
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The examiner can normally be reached on 6:30 am to 3:00 pm, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford, can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Lee /jtl  
May 12, 2004



**Jong-Suk (James) Lee  
Primary Examiner  
Art Unit 3673**